



Welcome to Lewis & Clark County Extension

The Extension Service is a partnership between Lewis & Clark County, Montana State University and the United States Department of Agriculture. The three-way partnership provides educational programs in the areas of Agriculture/Natural Resources, 4-H/Youth Development, Community Development and Family Consumer Sciences. The Lewis & Clark County Extension Office is located on the west side of the Exhibit Hall at the Fairgrounds. This location provides easy access, good parking and a friendly atmosphere for the public.



Brent Sarchet, Janet Cerovski, Allison Flynn and Catherine McNeil

Big Reactions at 4-H Science Day Camp

Fifteen youth participated in 4-H Science Day Camp in August. At the camp, participants gained skills related to technology, engineering and science through activities on robotics, roller coaster design, liquid nitrogen demonstrations and rocketry. The main portion of the camp concentrated on robotics using NXT LEGO Robots. Using these robots, participants learned to work as a team to accomplish a task, read and develop designs, program a robot using computer soft-

ware, problem solve, and make decisions. As a result from their experiences with 4-H robotics, 92% of participants agreed or strongly agreed they thought about their choice before making a decision, 85% were better able to solve problems, and 85% could use a computer program to make a robot do things. The camp ended by launching bottle rockets while learning about Newton's Laws of Motion. Who knew learning about science was so much fun?!



Taton Brewer and Micah Moffett work together to learn how to use a computer program to make a robot work.

Extension Office Partners with the Growing Community Project to Offer Free Gardening Classes



Extension Agent Brent Sarchet and Ann Waickman, Executive Director of Food Share, at a gardening season extension class.

The Extension Office partnered with the Growing Community Project to teach free monthly gardening classes. Classes included season extension techniques, pest management, rain barrels and putting the garden to bed. The Growing Community Project provided free child care during the event. This was a great opportunity to partner with a local non-profit to get valuable gardening information to a diverse group of people for free. The Growing Community Project specifically tries to serve low income or underserved groups in the community. It was a great opportunity to introduce them to Extension.



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Michael Murray
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4-H/Youth Development



Making a Difference in the Lives of Youth

Lewis & Clark County Extension strives to make a difference in the lives of youth through various programming efforts. In 2011, Extension educators reached over 800 youth in Lewis & Clark County through educational programs using the following methods:

- Organized 4-H Clubs – 400 members
- School Aged Child Education Programs—276
- School Enrichment Programs—124
- Day Camping Programs—115
- Overnight Camping Programs—107
- Special Interest/Short Term Programs—56

Assuring Quality Livestock in Lewis & Clark County

In today's society, it is becoming increasingly important for consumers to understand the source and quality of food products. Lewis & Clark County 4-H youth actively participate in quality assurance programs where they learn care and management of their livestock, animal health procedures, record keeping, carcass quality and animal handling through hands-on activities.



4-H members, Teresa Patten and Jade Kelley, participate in the Market Class at the Sheep Show during the Fair.

Through this program, youth are able to gain valuable skills while working with their animals as well as helping assure buyers at the Livestock Auction that they are receiving a quality product. This year 85 youth participated in the educational program, and put their knowl-

edge into action while working with their livestock projects. Participants indicated they will use their knowledge in a variety of different ways including:

- “I will make sure I handle my animal carefully.”
- “I plan on introducing my animal to other people and animals to reduce stress at Fair.”
- “I learned how to take better care of my animal.”

- [I plan to] “definitely pay more attention to the stress level of my animal and making sure it is in the most practical yet affordable environment possible.”
- “Making sure my pig is in a safe and non stressful environment and that I treat my pig fairly.”
- [I learned] “how to inject an animal without harming them.”

As 4-H youth mature through 4-H they continue to find new ways to improve their management and handling techniques with their animals while building a foundation of life skills such as responsibility, decision making and sportsmanship .

Painting the Barn Pink for Breast Cancer

Each year teen leaders in Lewis & Clark County 4-H organize many great teen leadership projects. Jay Deaton chose a project close to his heart where he could give back to others and raise awareness for breast cancer. Because of Jay's passion and dedication it was a project that continued to grow. He began by organizing “Paint the Barn Pink” on Friday of the Last Chance Stampede and Fair, which is the same day as Tough Enough to Wear Pink (TETWP) night at the rodeo. Jay sold t-shirts promoting “4-Hers R TETWP” prior to Fair and encouraged participants to wear pink on that day. He sold 132 shirts to 4-H members and their families with \$1.00 from each shirt going to support breast cancer patients in the area. Visitors walking through the barn on Friday of Fair were met with a sea of pink with 4-H families supporting the cause.



Jay Deaton talks about his 4-H teen leadership project to the audience during the Fair.

Additionally, Jay became involved with TETWP at the Rodeo. He took on the task of recruiting volunteers to “Pass the Hat” during the rodeo to collect donations and help with the grand entry. As a result, he raised \$2,103 for breast cancer patients during “Pass the Hat.” Jay shares his experience with his 4-H teen leadership project, “I learned a ton from this experience including organization skills, public speaking skills, how to deal with problems, and being able to work with other people. A lot of these were really hard for me before my project, but now I am way better at it.” 4-H teen leadership provides a platform for youth like Jay to be successful, learn about the community, and grow as a leader.

Demonstrating Top Speaking Skills in 4-H



4-H members, Ian Uland & Jaden Maharg, give a presentation in a workshop on "How to Give a Demonstration."

A long standing tradition in 4-H has been the emphasis on communication skills including public speaking. 4-H members are highly encouraged to give presentations during club meetings, project workshops and events. An annual event in Lewis & Clark County is the 4-H Demonstration and Public Speaking Contest. 4-H members can select any array of topics for the presentations,

and they often stem from their 4-H projects, such as cooking, dogs, shooting sports, wind energy, horse and leathercraft. Without a doubt, speaking to a group is a life-long skill that many 4-H members grow comfortable with through the 4-H program. Twenty-seven 4-H members in Lewis & Clark County were asked to complete a survey on Public Speaking. Because of their 4-H experiences, 100% of respondents indicated they could find information for a speech or talk, 96% could select a topic for a speech or talk and 93% could give a speech or talk. As members grow and develop in 4-H, so do their public speaking skills. Many teen members are able to teach workshops or help younger 4-H members with their communications skills. After their 4-H careers, these skills continue to help them throughout their life.

Learning Life Skills at Loon Lake

Lewis & Clark County 4-H Camp moved to a new location this year to Loon Lake 4-H Camp near Bigfork at the end of June. 4-H Camp provides a platform for youth to learn new skills in a fun



Tara Novak, Janae Bodner and Katie Lindner worked together to build an egg drop at 4-H Camp.

overnight setting. Participants attended a variety of different workshops with topics including crafts, science, plants, shooting sports, engineering and theatre arts. Camp creates an environment for members to create new friendships, improve self-esteem, and develop life skills. On the evaluation at the end of camp, 88% of youth agreed or strongly agreed they built friendships that would last after camp, 88% accomplished something

they couldn't do the first day of camp, and 84% pushed themselves to try harder because of challenging activities.

The camp is organized by teen camp counselors guided by adult volunteers. They are responsible for planning and implementing the activities from the workshops, to team building, to recreation. They also work with a close group of campers in their cabins and groups. They are given a large amount of responsibility and gain a lot from the experience, such as communication, teamwork and leadership. Camp allows both campers and counselors to grow as individuals and learn from each other.

Wonders of Wind Energy

The use of renewable energy is becoming more and more prevalent in today's society. One of the newest 4-H projects in Montana is wind energy, which gives youth hands-on experiences in renewable energy. Opportunities for workshops were created to give local youth an in-depth look into wind energy. With model turbines from KidWind and hands-on activities, youth learned about wind turbine blade design, electricity, how wind works, how to measure wind and energy consumption.

Led by Lewis & Clark County, youth and adults from Beaverhead, Cascade, Gallatin and Yellowstone Counties spent a day in Great Falls learning about wind energy. The 28 participants listened to specialists at MSU-Great Falls on wind energy, viewed the campus wind machine and technician lab, participated in hands-on activities, and toured a commercial wind farm.

Throughout the day, they learned about careers in wind energy, commercial wind production, turbine mechanics and use, electricity and more. Plus they had the opportunity to network with people from other counties to learn about wind energy in their area. Through these educational experiences, youth were able to get a firsthand look at renewable energy and how it is applicable to their world.



Aunika & Austin Hammatt view the commercial wind turbines at the Horseshoe Bend Wind Farm during the Great Falls Field Trip.

4-H Partnering with Lincoln Afterschool

One of many ways for youth to experience 4-H is through afterschool programs. During the school year, Lewis & Clark County Extension partnered with Lincoln's Afterschool Program, POUNCE. Students participated in two different series of programs on robotics and agriculture. In robotics, two different age groups participated with different types of robots: RCX LEGO Robots and WeDo LEGO Robots. Youth learned how to program a robot using a computer, work as a team, make decisions, and how to use engineering concepts.



POUNCE student, Aden Deshner, plants wheat in the community garden at Lincoln.

of wheat, uses, structure of the plant and planted growing tubes. By partnering with the Lincoln Community Garden, youth were able to plant wheat along with other vegetables and monitor the growth throughout the summer. In the fall, youth learned about harvesting, threshing, milling and processing wheat products. Through this process, youth have gained an understanding of how food is produced and how it reaches the consumer.

Speaking Out for Military Kids

Speak Out for Military Kids is a program that combines both military and non-military youth to inform people what happens to military kids when they have a loved one deployed. This year Lewis & Clark County hosted two of these events.

At the first Speak Out, 26 kids partnered to develop messages to promote the Month of the Military Child in April. The kids wrote and recorded radio spots for which KMTX donated the production space and time for the spots. With the assistance of MSU, the promos aired locally and statewide.

During the next Speak Out for Military Kids, 15 youth again teamed up to develop, write and produce a morning news show called "Wake Up Montana." Some of the kids went "on location" to film and interview soldiers in Iraq. Others filmed a story about the deployment cycle and created a commercial.

They edited all materials and finished filming the staged portion at Helena Civic Television (HCTV). HCTV then aired the segment several times throughout the following weeks.

Not only did these kids learn about using the different technologies to produce the messages, they were also able to share their stories with the community to help others understand the challenges military children are facing.

Exploring Careers in Agriculture

There are few opportunities for youth to be exposed to careers in agriculture in the Helena valley. Additionally, many youth believe that the only agricultural careers are farming and ranching. In reality, there are many careers from the farm to the fork that encompass industries such as forestry, fisheries, food service, wildlife, chemistry, biotechnology and mechanics. Through a grant from the Montana 4-H Foundation and support from the Lewis & Clark County Farm Bureau, a series of activities were planned to increase awareness of career possibilities within agriculture. To kick off the campaign, presentations were given to students at both Helena area high schools.



Wesley Coon hangs an insect trap while learning from state entomologist, Ian Foley.

Additionally, a new educational program was created to give youth hands-on experiences within agriculture. The two day program took place in May and took participants on-location to various agricultural businesses and organizations around the Helena valley to participate in tours and hands-on experiences. Event partners included Benny's Bistro, Johnson's Farm, Montana Wild Educational Center, Helena Farmers' Market, Farm Service Agency and UM-Helena College of Technology. Additionally, the 12 partici-

pants learned about colleges and majors available, developed skills to help them prepare for jobs and participated in team building. As a result of the program, 90% of participants were more aware or somewhat more aware of different agricultural career opportunities and colleges or majors available and felt more prepared or somewhat more prepared to apply for a job. Additionally, 80% of participants planned to use something they learned either to pick a college major, research a specific career more in depth, when applying for a job, or general agricultural knowledge. Because of the success of the program, there are plans to continue each year to expose youth and give them hands-on experiences with agriculture.

Agriculture, Natural Resources and Family Consumer Sciences

Master Gardener Program—Full Steam Ahead

This spring Level I and this fall Level II of the Master Gardener Series were taught in Helena. The Master Gardener classes continue to be well received by the public. A local flare was added to the course by having local horticulture experts come talk with the class. People attending the class appreciated the opportunity to ask the local experts questions about gardening in Lewis & Clark County. The Level II class took tours of two local nurseries.

Frequent comments from class participants included: “I am utilizing the information I learned everyday;” “I am able to help my neighbors with their gardening and landscaping questions and projects;” and “My garden is much more productive as a result of taking the class.”

Past class participants have started a business growing produce and are now selling produce at the Helena Farmers’ Market. Class participants have lent their expertise, knowledge and sweat through various gardening and landscaping projects throughout the County including collaboration work with the Growing Community Project, Exploration Works, Food Share, and the Extension Office. This spring, Helena area Master Gardeners and the Extension Office partnered to publish a gardening newsletter, named *The Growing Zone*, which is published five times a year. The newsletter is circulated through local businesses and libraries.

Master Gardeners and the Extension Office had a booth at the Helena Farmers’ Market to answer gardening/horticulture questions and provide informational handouts to the public. Special booth themes were a new addition to the booth this year. Themes included bees and other pollinators, season extension, composting and garden tool maintenance.



Master Gardeners, Judy Siler and Kim Peterson, answering questions at the booth.

The Extension Office partnered with the Jefferson/Madison County Extension Office and took some Master Gardeners to Missoula for a field trip of the DNRC Tree Nursery. Master Gardeners got the opportunity to get a behind the scenes look at how trees are propagated. They left with valuable information on propagation and tree health that they will be able to apply on their own properties.



Master Gardeners with Extension Agent, Brent Sarchet at the DNRC Tree Nursery.



BYU - Idaho University Horticulture Professor teaches class on espalier trees.

The Extension Office took a group of Helena Master Gardeners to the Master Gardener conference in Rexburg, Idaho this summer. The conference was one day filled with amazing gardening and horticulture educational classes.

Everything from plant propagation to landscape design and espalier trees was offered. The Extension Agent and the Master Gardeners came away with some great ideas for future gardening and horticulture classes in Lewis & Clark County.

Producers Add Value to Their Forage Crop Through the NWSFF Program

Over 450 acres of alfalfa, grass and barley straw were certified under the Noxious Weed Seed Free Forage Program. Producers with certified forage are able to receive a premium price for their hay and straw. During inspections, the location of any noxious weeds are located on a field map, so the producers can know where the weeds are located in the field to assist with treatment and monitoring of the weeds.

Extension Office Assists the Public in Integrated Pest Management (IPM) and Disease Identification

The first step in IPM is identifying the pest. Over 300 insects and plants were brought into the office for identification. After proper identification, management options were provided on the specific pest(s). Proper identification can save people hundreds of dollars in unnecessary treatments. The office also made over 50 house visits throughout the county helping identify plant diseases, insects and plants. Tree health and diseases were a primary concern among the public this year. Also the office received many calls on bees and wasps. Several people were assisted with the relocation and removal of bee and wasp nests this year.



Extension Agent, Brent Sarchet, in bee suit, helping remove bees from an old school house.

Extension Office Receives Grant to Form Local Food Policy Council

The Extension Office received a Growth Through Agriculture Grant to form a local food policy council. The council was formed early this spring and has held five meetings. The group is comprised of a mix of people who work in all aspects of the food industry from producers and processors to consumers and local food advocates. The purpose of the group is to help identify aspects of the local food system that are working and areas that are not working, and then the group is to suggest ways of addressing the gaps in the local food system. The meeting this fall will be the last meeting before a final report on the status of the local food system will be sent to the Montana Department of Agriculture who oversees the Growth Through Agriculture program. The Montana Department of Agriculture will use the report to help them in their statewide local food policy efforts.

Lincoln Community Garden

This was the first year of gardening in the newly built greenhouse and outside garden in Lincoln. What was once an idea among Lincoln community members and the Extension Office, truly came to life this year. All of the plots inside the greenhouse and 90 percent of the plots outdoors were rented by Lincoln residents. The community garden was a testimony to the saying, "if you build it, they will come." The Lincoln community came and gardened. The community garden has become a

focal point for community building in Lincoln. With the hard work of the Lincoln gardeners, they were able to prove that you can grow produce in a town that can receive snow any month out of the year.



Food Preservation Workshop Teaches People How to Safely Preserve Their Food



Two evening, hands-on, food preservation workshops were taught this summer in the kitchen at the Lewis & Clark County Fairgrounds. The class size was limited to 15 people in each class, which didn't take long to fill. The

class participants got the opportunity to learn hands-on how to use a pressure canner and a water bath canner. In difficult economic times, the knowledge, the hands-on experience and reference material gained through the workshop will help families save money on food costs and enable their families to eat safe and nutritious food throughout the year.

Rural Land Management Series Assists Landowners

County Extension Agents and Extension Specialists offered a series of classes for small acreage landowners in Helena. The topics covered included developing a management plan for property, soils and nutrients, weed management, wells and septic systems, and livestock management. The class concluded with a tour of David Brown's ranch east of Helena. David has incorporated various conservation projects on his ranch such as stream bank stabilization and revegetation. The class participants got the opportunity to learn about different management practices that they can employ on their own property, thus improving the productivity, profitability and sustainability of their land.

Regional Beef Seminar Brings in Out-of-State Presenters

Seven counties partnered to offer a regional beef seminar in January. Ivan Rush, University of Nebraska Extension Beef Specialist Emeritus, Stephanie Furman, University of Nebraska Feedlot Manager, Dennis Cash, Montana State University



John Patterson, Stephanie Furman, Ivan Rush and Dennis Cash - presenters at 2011 Beef Seminar.

Extension Forage Specialist, and John Patterson, Montana State University Extension Beef Specialist, presented on future trends and expectations in the beef industry, feeding dry peas in a ration, harvesting, feeding and storing hay, and understanding the feed value of your hay. The beef seminar was held in Augusta, Stanford, Valier and Havre. The average attendance at each location was 25 people. Attendees gained valuable information that can be applied in their own beef cattle operations.

Three PAT Workshops Taught This Spring

An all day private applicator and commercial applicator (PAT) workshop was taught in April in Helena with over 50 participants. Two other workshops were taught in May, one in Augusta and another in Helena. Private applicators have to accumulate six credits every five years in order to maintain their license. Providing several classes a year enables more applicators to remain current on their credit requirements.

Poultry Expert Comes to Helena

Poultry expert, Jim Adkins from the International Center for Poultry based in North Carolina, came to Helena in July to teach two workshops. The first workshop was on poultry judging and showmanship. 4-H members, leaders and FFA members got a hands-on opportunity to learn about poultry showmanship and judging. People came from four neighboring counties to attend the workshop. About 30 people attended the first workshop.

The second workshop focused on basic poultry management and heritage breeds. About 25 people attended the second workshop. Evaluations from the workshop indicated a great

appreciation for the information. One person who attended the class indicated that they hope to get in the poultry business as a result of attending the class. Another person indicated they hope to expand their current operation, and turn it into a profitable business. Everyone came away with valuable information that they could apply to their own operation, thus improving the sustainability, productivity and profitability of their poultry business.

Helena Farmers' Market Vendors Learn About Important Food Safety Practices

The Extension Office partnered with the Helena Farmers' Market to offer a one day workshop for the market vendors and prospective vendors. The presenter list included Brent Sarchet, Extension Agent, Laurel Riek, Lewis & Clark County Health Department Sanitarian, Angie DeYoung, Montana Department of Agriculture Marketing Specialist, Ann Waickman, Helena Food Share, and Maggie Petaja, Lewis & Clark County Health Department WIC Program. Topics included food safety on the farm and good agricultural practices, local food regulations, marketing your products beyond the farmers' market, WIC grower contracts and senior nutrition coupons. Vendors left the workshop with the information and resources necessary to help them have a successful farmers' market season.

Interest in Beekeeping is Buzzing



In March, the Extension Office hosted a beginner beekeeping class. Over 50 people attended the one day workshop in the 4-H Bill Hamilton Building. The presenter list included Ed Heinlein, owner

of Heinlein Apiaries in Helena, David Baumbauer from the MSU Plant Growth Center in Bozeman, and Ian Foley from the Montana Department of Agriculture. Many class participants indicated aspirations of starting beekeeping as a hobby or business. Other participants indicated a desire to expand their current beekeeping operation. The class spun off the formation of a local beekeeping club that now meets on a monthly basis. Several families attended the workshop, and the youth indicated a desire to do beekeeping as a 4-H project in the future.

4-H Volunteer Leaders Committed to Making the Best Better

There are nearly 120 volunteer leaders in Lewis & Clark County 4-H. Volunteers serve as club organizational leaders, project superintendents, activity or event coordinators and in many other areas. Through their support along with guidance from the Extension Office it is possible to continually expand and improve the 4-H program.

A county volunteer leaders' training was provided to give volunteers an opportunity to gain leadership skills to ultimately improve their ability to reach youth. Two sessions were held with one targeted at club organizational leaders and another at project leaders. Over 15 leaders attended and most attended both sessions. Through the trainings, leaders gained skills to enhance club meetings, emphasize experiential learning, create a vibrant club, and learned about resources available. On the program evaluation, all of the participants planned to use something they learned. Applications included

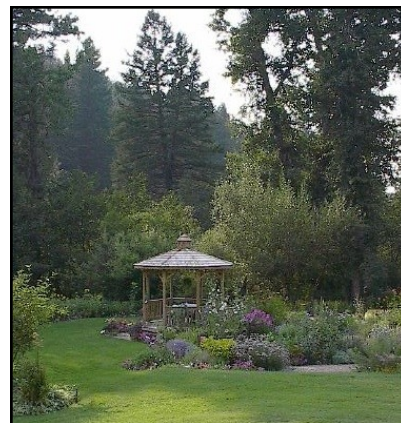


4-H Volunteer, Kim Mack, assists Madison Owens during an Air Rifle Workshop at 4-H Camp.

specific activities, planning activities around the experiential learning model, improving service learning, using youth as assets and improving club meetings. The training provided a comfortable environment for leaders to network, share ideas and solve common problems.

Gardeners' Day at Tizer Gardens

Lewis & Clark County and Madison/Jefferson County Extension Agents presented and had an informational booth at the second annual Gardeners' Day at Tizer Gardens in September. Over 50 people attended the day long event. Other presenters included Judy Fisher from Fisher Seeds and Jennephyr Reiche Sterling from Montana Herb Gathering. The presentation topics included how to plant and care for trees, pollinators in the garden, planting garlic, planting and uses for herbs, and owners of Tizer Gardens, Richard Krott and Belva Lotzer, lead a garden tour talking about their favorite trees and perennials. This was a great opportunity for two counties to collaborate with a local business in providing gardening and horticultural information to the public.



Contact Us



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www.msuextension.org

Montana State University Extension is an ADA/EO/AA Veteran's Preference Employer and provider of educational outreach.

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